

App. No. 10/757,942
Attorney Docket 3016.2.7 NP

Amendments to the Claims

Claim 1 (currently amended). A fluid mixing block for mixing fluid components of a reactive solution, comprising:

a mixing block housing;

at least two inlet ports and respective at least two inlet chambers formed within the mixing block housing, wherein the two inlet ports and inlet chambers each accept[s] an injection of a fluid [at a first pressure] from a supply source;

a mixing chamber, formed within the mixing block housing, wherein fluids injected from the inlet chambers are combined and mix to form a solution of desired reactivity at a lower pressure than [the first pressure] a pressure of each respective inlet chamber; and

a dispensing port, formed within the mixing block housing, wherein the desired solution exits the mixing block housing[.];

at least three individual chamber plugs, which are removably fastened to the mixing block housing to allow for manual visual inspection, cleaning, and adjustments of the inlet and mixing chambers; and

wherein a supply filter is mechanically fastened to each inlet chamber plug for filtering out suspended particles within a fluid flowing therethrough to prevent clogging of downstream chambers or other parts.

Claim 2 (canceled).

Claim 3 (currently amended). The fluid mixing block of claim 1, further comprising:

a flow control device backflow-preventing-valve/flow-rate-reducing-orifice-unit attached to the mixing block housing between each inlet chamber and the mixing chamber to reduce the rate of flow of fluid flowing therethrough ad to prevent fluid from flowing back upstream into a fluid supply source.

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Claim 4 (currently amended). A fluid mixing block for mixing fluid components of a reactive solution, comprising:

at least a first and second inlet port and an outlet port;

at least a first and second inlet chamber and a mixing chamber;

a first backflow device coupled between the first inlet chamber and the mixing chamber;

a second backflow device coupled between the second inlet chamber and the mixing chamber;

at least three individual chamber plugs, which are removably fastened to the mixing block to allow for manual visual inspection, cleaning, and adjustments of the first, second and mixing chambers;

a first fluid located in the first inlet chamber at a first pressure, and the first fluid located in the mixing chamber at a second pressure that is less than the first ~~set~~ pressure; and

a second fluid located in the second inlet chamber at one pressure, and the second fluid located in the mixing chamber at another pressure that is less than the one pressure.

Claim 5 (canceled).

Claim 6 (currently amended). The fluid mixing block of claim 4 [5], wherein a supply filter is mechanically fastened to an inlet chamber plug for filtering out suspended particles within a fluid flowing therethrough to prevent clogging of downstream chambers or other parts.

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Claim 7 (original). The fluid mixing block of claim 6, wherein the first and second backflow device is configured to reduce a rate of flow of fluid flowing therethrough and to prevent fluid from flowing back upstream into a fluid supply source.

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Claim 8 (new). A fluid mixing block for mixing fluids, comprising:

a housing;

a mixing chamber defined by the housing;

a first inlet port through the housing;

a first flow control device coupled between the inlet port and the mixing chamber;

a first access port, distinct from the first inlet port, through the housing, and

including orientation and dimensions sufficient to enable direct visual inspection of the first flow control device; and

a chamber plug removably coupleable to the access port.

Claim 9 (new). The fluid mixing block of claim 8, wherein the first flow control device comprises a backflow prevention device.

Claim 10 (new). The fluid mixing block of claim 8, wherein the first flow control device comprises removably coupled to the housing.

Claim 11 (new). The fluid mixing block of claim 10, wherein the access port further comprises orientation and dimensions sufficient to enable extraction of the first flow control device from the fluid mixing block.

Claim 12 (new). The fluid mixing block of claim 8, further comprising a second access port oriented substantially orthogonal to the first access port.

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Claim 13 (new). The fluid mixing block of claim 8, further comprising:

a second inlet port through the housing, oriented substantially parallel to the first inlet port, and disposed substantially non-collinear with the orientation of the first inlet port;

an outlet port through the housing, substantially equidistant from the first inlet port and the second inlet port, and oriented substantially orthogonal to the first inlet port.

Claim 14 (new). The fluid mixing block of claim 8, further comprising a plurality of mixing block shafts through the housing comprising orientation and dimensions sufficient to receive mounting shafts, whereby the mixing block may be mounted to a surface.

Claim 15 (new). The fluid mixing block of claim 8, wherein the first flow control device comprises:

a backflow prevention device; and

a flow rate reducing orifice.

Claim 16 (new). The fluid mixing device of claim 13, further comprising:

a second flow control device coupled between the second inlet port and the mixing chamber; and

a second access port, distinct from the first and second inlet ports, through the housing, and including orientation and dimensions sufficient to enable direct visual inspection of the flow control device.